William and Mary
ECO-461 Industrial Organization

Prof. Shi Qi
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Term: Spring 2023

Class Meets: T R, 11:00A-12:20P,
Chancellors Hall 134
Office Hours: Sign up on Calendly,
T 3:30P-4:30P
R 12:45P-1:45P

1   Course Description

This course is an introduction to industry organization, which is a field of economics dealing with the strategic behavior of firms, regulatory policy, anti-trust policy, and market competition. Our class focuses on the decisions and interactions of firms (and, to some extent, consumers and governments) within narrowly defined industries. We begin with the classical model of perfectly competitive firms that treat firms as "black boxes" of production. From there, we move on to more interesting and realistic market structures (differentiated product firms, oligopoly, cartel, and monopoly). In the process, we will look into strategic business practices such as price discrimination, vertical integration, auction, and advertising; investigate interesting firm dynamics; and discuss anti-trust policies and industry regulations such as mergers and predatory pricing. Throughout the course, we will visit many work-horse models and equilibrium concepts in business and economics.

2   Textbooks & Prerequisites

Modern Industrial Organization. 4th Edition. by Carlton & Perloff. Owning a text is strongly recommended but not required.

Students should have completed ECO 303 Intermediate Microeconomic Theory or an equivalent class. In addition, you must have basic calculus skills (differentiation, integration, chain rule, quotient rule, etc.) To succeed in this class, we will solve many economic models requiring algebraic and graphic analyses.

3   Course Format

The course is lecture-based. Students must attend *all* classes to succeed in class. Lecture slides will be posted on Blackboard *AFTER* the class time. Lecture slides are a good guide for studying and reviewing for exams, but they do *not* contain all the necessary class materials. Therefore, you will need to take careful notes in class.

4 Weekly Quizzes

Although no class attendance is required, weekly quizzes will be administered on Blackboard to keep students on top of the weekly learning. These short quizzes consist of multiple-choice questions on economic concepts. Students must complete these quizzes on their own.

They will typically be posted on Friday mornings, and the deadlines are typically at 11:59 PM (midnight) on Sundays. You will *not* be allowed to take the quiz after the deadline, and you will *not* be able to earn the quiz credit for that week.

5 Assignments

There will be six homework assignments. Different from the quizzes, questions on these assignments can be time-consuming, and they are designed to deepen your knowledge and will all involve some calculations, derivations, or graphing with multiple steps. Homework assignments are designed as extensions to the lectures. In other words, they are meant to be slightly more difficult and complicated than the lecture examples, so you can learn how to apply lecture concepts to practical problems.

You will need to submit every home assignment twice on Blackboard. On the first submission, any reasonable effort will guarantee you a passing homework grade - 60%. "Reasonable" means you must have completed every problem on the assignment. Immediately after the first submission deadline, an answer sheet will be posted online. Then, you are tasked to go over your own homework. You must (1) identify any mistakes you have made; (2) comment or write down the correct answer. This is designed for you to relearn the course materials from your mistakes. The revised homework will be submitted on a second specified deadline, usually 3-5 days after the first submission. If you have corrected and commented on all your mistakes, then you will receive the additional 40% on your homework. This means that if you work diligently, you should receive 100% on all your homework assignments.I will audit the revised homework assignments from the second submission. If I discover any mistakes not corrected or corrected wrong, the points of that part will be deducted from your homework. Your total loss of points is capped at 40%.

You are permitted and even encouraged to work with other students on an assignment. However, each student must write up their own solution and must *acknowledge* all their collaborators in the homework. When you solve a problem jointly, you must be able to look away from the group notes and reproduce the solution on your own. If not, you have learned nothing from the exercise and are giving yourself a false sense of security about your understanding of the material. Please note that **identical assignments will receive a score of zero**.

Students can choose not to turn in any given homework assignments for any reason (e.g., you are busy, traveling, sick, or not feeling doing homework, etc.). To do so, you *must* submit a written note on Blackboard stating your intention by the first submission deadline. Your

homework points will be moved to your final exam weight. However, you will get zero points for that assignment if you forget to send a note by the deadline. Students are *not* allowed to drop assignments post-submission. **Warning:** students typically do better in homework assignments than exams, so you forgo a homework assignment at your own peril.

6   On-line Data Tasks

You will complete two online data tasks. They are testing your ability to gather and analyze data. I will post data sources and short instructions for those assignments. These instructions should be very straightforward in helping you access and navigate the necessary online data websites, so I will *not* go over them in class. However, if you need help with the data, please do not hesitate to contact me. You must complete these tasks individually.

7   Exams

There will be two midterms and one comprehensive final exam. All exams are closed-booked. Questions will be similar in format to those on homework assignments and practice exams. No cooperation is allowed during the exams, and any attempts of dishonesty will be punished with as much severity as the College permits.

The midterms are *not* cumulative, and they will be administered during regular class time on the dates scheduled on the class calendar. Before each midterm, you will be given a practice exam, and I will go over the practice exam and answer any questions regarding the exam during the scheduled exam review classes.

There will be no makeup exams for the midterms. If you need to miss a midterm exam, you must notify me with a written/email request. Any reason for missing the exam is accepted, as long as the request is submitted to me at least 24 hours before the exam. [Please note that I do NOT cancel or drop grades if I receive the notification less than 24 hours before the exam or after the exam.] In the case of a dropped exam, the points from that exam will then be *automatically moved to your final exam*, so you don't lose the opportunity to gain those points.

The final is cumulative and will be administered in the same classroom on the official College scheduled final exam date. It will last for the entire 3 hours. Students can request a makeup final exam, and the only valid reasons would be: (1) A documented College sponsored event; (2) A documented medical emergency; (3) Some other documented extraordinary events. If one of these applies to you and you need to reschedule the final exam, you must first submit a request to the Dean of Undergraduate Studies office, and then I will need to sign off on your request.

8 Grading

Your final class grade is based on your performance in quizzes, assignments, data tasks, and exams. A total of 100 points are possible for the course. They are distributed as follows: Online quizzes - 5%; Data tasks - 5%; Homework assignments - 18%; Midterm 1 - 16%; Midterm 2 - 16%; Final - 40%.

If you disagree with the grading of an exam, you may resubmit it for my review. I expect to have a written argument about why more points should be awarded. Please submit these disputes within one week of the exam return date.

Grading Scale:

A	A-	B+	B	B-	C+	C	C-	D+	D	D-	F
	92.9%	89.9%	86.9%	82.9%	79.9%	76.9%	72.9%	69.9%	66.9%	62.9%	
$\geq$	to	to	to	to	to	to	to	to	to	to	$<$
93%	90%	87%	83%	80%	77%	73%	70%	67%	63%	60%	59.9%

The grade scales above are ABSOLUTELY firm. This means, for example, if you get a class score of 89.99, you will absolutely get a B+, not a A-.

9 Class Communication and Office Hours

Emails will be the primary way of communicating with me. Emails will generally be answered within 24 hours. However, emailing me the evening before a homework due date or an exam will not guarantee you a response. When emailing, please use your official W&M email account, and emails from any other accounts will be disregarded! The email subject line must clearly state your name and class (ECON 461).

Office hours are an important way to get help. Please use https://calendly.com/shiqi-econ to sign up for office hours. Please also be aware that office hours are a shared resource. So every student can meet with me for *at most* 30 minutes per week. That means I won't be able to go over an entire homework or exam with you during office hours. However, you can come as a group for the meeting. In addition, if none of the office hours work for you, please email me to schedule a meeting outside the office hours.

If you find course materials challenging, please come to my office hours early and often in the semester. Please come well-prepared with precise questions to ask. [I will not answer a vague request like: "I don't know how to do Question X on Homework Y, could you help?"] For example, please bring your own work, show me where you are stuck, and explain the reasons for needing help.

10 Optional Online Discussion Forum

I have created on Blackboard a class discussion forum. You can create a new thread to ask questions on any class topic, and everyone can share their comments and discuss the same topic. I will get a notification on any new threads/comments posted and will join the discussion as soon as possible. I will also occasionally post extra credit opportunities on the discussion board, so please be on the lookout for those if you are interested.

11 Academic Honor Policy:

You are expected to follow the William & Mary Honor Code. If I discover any academic misconduct, I will initiate an Honor Council proceeding and recommend failure of the course. If you have any questions about how the Honor Code relates to this course, feel free to talk to me or refer to the Student Handbook and the William & Mary Honor Council's website.